Vigilant Surveys

DAMP AND MOULD INVESTIGATION

Detached house, Norfolk

Address withheld

Prepared for the client

Inspected October 2026

Specimen report

Rory Thorne, Damp & Compliance Surveyor · vigilantsurveys.co.uk

SPECIMEN REPORT

This is a real Vigilant Surveys damp and mould report, published with the written permission of the client it was written for. The name, the address, the postcode, the reference and the exact date of the inspection have been removed, along with four photographs that would identify the house (a room view and three showing the street, the drive and the houses nearby), and the street has been cut from the top of two roof photographs. Every reading, every finding and every recommendation is exactly as it was issued.

Summary in plain English

OVERALL RATING 7 OF 9

Wind driven rain entering under the ridge, where the ridge flashing has not bonded and has lifted, reaching the old chimney position below. It is held there by a capped, unvented flue and by a bitumen coating on the back of the plasterboard ceiling that stops it drying. Salts from the old flue in the ceiling plaster may be drawing in further moisture from humid air.

On the evidence, the damp patch on your living room ceiling is most likely rain getting in at the ridge, the very top of the roof, directly above the old chimney.

The strip under the ridge tiles should be pressed down evenly on both sides of the ridge and stuck to the tiles to keep the rain out. Over the patch it has not stuck down and has lifted, so wind blows rain up under it. The lifted strip, the roof timber beneath it and the patch on your ceiling are in a straight line, one directly above the other, and that roof timber is the only one in the loft with a high moisture reading. A black coating painted over the back of the ceiling in the loft stops it drying out, so it can only dry into the room, which is why the paint peels. Salt from the old chimney may also be in the ceiling plaster, which draws in moisture from the air and would explain why it is worse in summer.

Have the strip under the ridge replaced and properly stuck down, and the cracked tiles replaced, ventilate the old chimney, and clear the vents under the roof edge. Once it has dried out, replace the piece of ceiling with the black coating on its back, as it will never behave like the rest of your

ceiling. Damp is a symptom, so unless the source is dealt with it will keep coming back.

Confidence	Highly probable on the evidence
What would settle it	Samples from the ceiling at the head of the chimney breast tested for moisture and salts, against a sample from the ceiling away from the breast. A return visit in heavy rain to read the ridge timber again, against the rafters around it at 6.1 to 7.7 and the loft control of 10.4.

The overall rating is a judgement on the whole of the findings, not a meter reading. 1 is the lowest and 9 the highest. Green 1 to 3, amber 4 to 6, red 7 to 9.

1	Dry throughout. Nothing found.
2	Dry, with a minor defect worth putting right as good practice.
3	Dry, with a defect that could lead to damp if left.
4	Elevated moisture from a single identified cause, with no work to the structure needed.
5	Elevated moisture in more than one area, no damage, correctable with general maintenance.
6	An active damp problem with a clear cause, correctable with ordinary repairs.
7	**Active damp causing damage to the building, or several causes acting together.**
8	Widespread damp with significant damage, or a cause not yet identified.
9	Severe, spreading or causing structural damage. Needs attention before anything else.

Instruction and conditions

Instructed by	The client
Reason for the inspection	A focused damp survey of the staining and peeling paint on the living room ceiling, which the client reports has continued for about two and a half years despite roof repairs and a complete reroof.
Scope	**Focused survey, one problem area**. The living room and the loft space above it were inspected, with moisture, temperature and humidity readings and thermal imaging. The roof covering was recorded in photographs. The external walls were not inspected and no opening up was carried out.
Date of inspection	October 2026

Weather at inspection	Light rain
Rainfall in the previous 48 hours	Light
External conditions	20.6°C, 60.1% RH, dew point 12.6°C
Access	Owner

What the occupier reports

Recorded as given at the inspection. This is the occupier's account and is not a finding.

> *The client reports staining and peeling paint on the living room ceiling for about two and a half years, worse in the summer. He was told it was a roof problem, and the roof has since been completely reroofed and retiled, with no change.*

First noticed	2.5 years.
Pattern reported	Worse in summer
How it presents	Peeling paint, Staining
Anything that changed it	Nothing
Previously advised by	Builder
What they were told	Various roofers said it was a roof problem.
Works already carried out	A complete reroof, with the roof retiled.
Washing dried indoors	Not known
Tumble dryer	Not known

The property

Type	Detached
Approximate age	1965 to 1980
Wall construction	not established
Ground floor	Unknown
Heating	Oil boiler, used continuous

Room by room

This was a focused survey, covering the affected rooms and anything contributing to the cause. Other rooms were not surveyed. Moisture readings are comparative. %WME is not a moisture content, so readings are given against a control taken in an unaffected area of the same room.

Living room



ENVIRONMENT

Air temperature and humidity	21°C, 69.7% RH
Dew point	15.2°C
Coldest surface measured	17.5°C at External north wall
Surface against dew point	**2.3°C ABOVE** Condensation excluded on this surface at the time of inspection.
Thermal scan	**COLD SPOTS** Scanned with a thermal imaging camera, surface 17.5°C, air 21°C, 69.7% RH.
Heating	Radiator. Nothing seen at it.

CHIMNEY

Chimney breast	Present in this room.
Flue	**NOT VENTED IN THE ROOM** The breast is not vented in the room. A flue that is not ventilated at both ends stays cold and still. That is the condition in which flue condensation forms and in which hygroscopic salt contamination of the breast develops, and it is why a breast can read wet on a wall that has no other source of water available to it.

VENTILATION

Background ventilation	Opening windows
Trickle vents	None fitted
Mechanical extract	None
Door undercut	Under 10mm, measured 3mm

MOISTURE

Floor in this room	Not established
Control reading	14.5 %WME. External north wall

COLD AREAS ACROSS THE CEILING ON THE THERMAL CAMERA

Surface	Wall
Whereabouts	Across the ceiling

DAMP PATCH

Surface	Junction
Whereabouts	Ceiling at the head of the chimney breast
Observed	Peeling paint, Staining
Reading on it	**100 %WME** Ceiling at the head of the chimney breast against a control of 14.5
Reading on it	**100 %WME** Ceiling at the head of the chimney breast against a control of 14.5

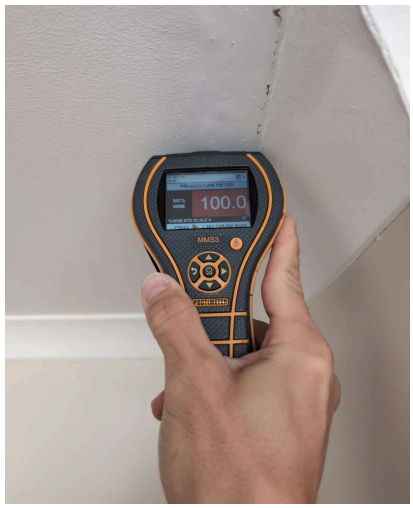
OBSERVED

Visible mould	None observed
Other observations	Peeling paint, Blown or hollow plaster, Staining



METER SHOWING THE READING

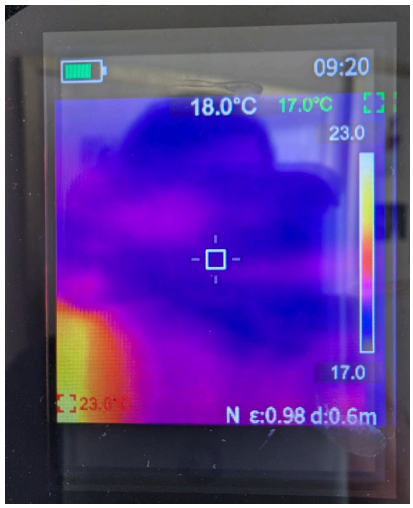

WHERE THE READING WAS TAKEN



METER SHOWING THE READING



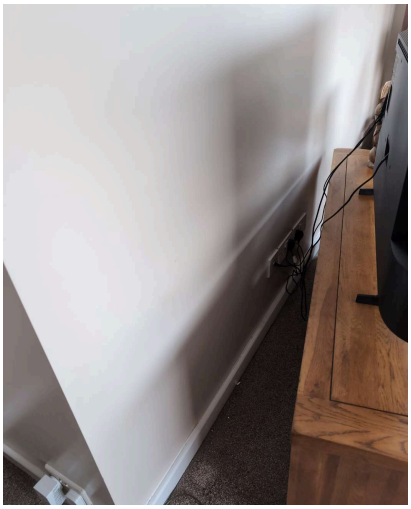
WHERE THE READING WAS TAKEN



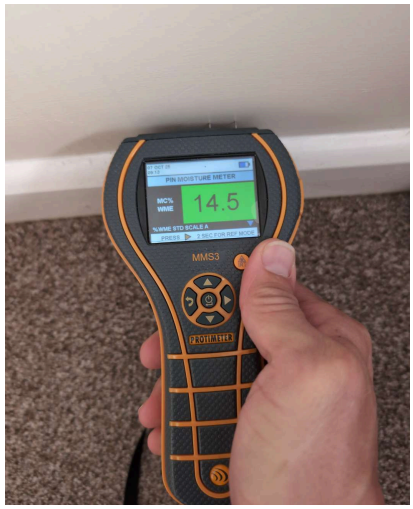
THERMAL

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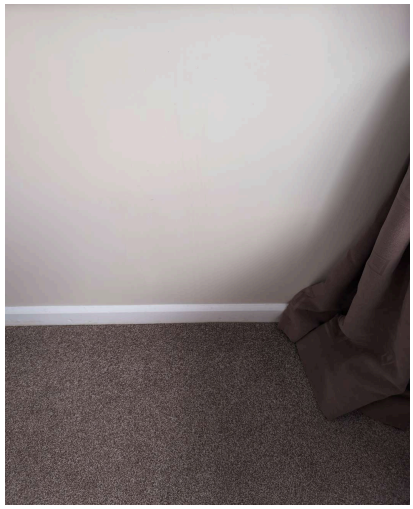
DEFECT



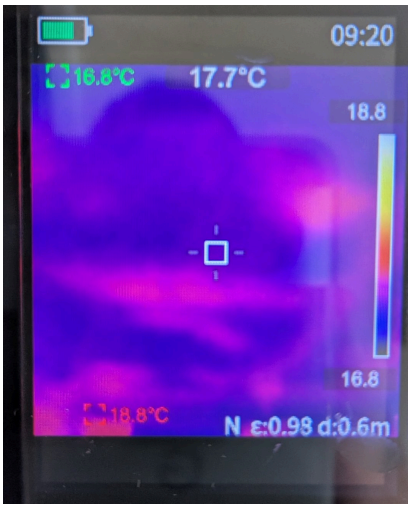
CHIMNEY BREAST, NOT VENTED



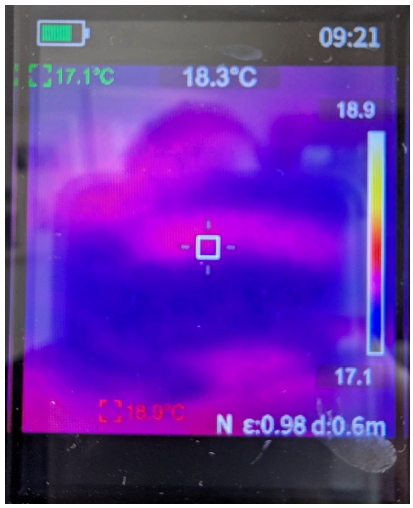
METER IN POSITION



CONTROL LOCATION

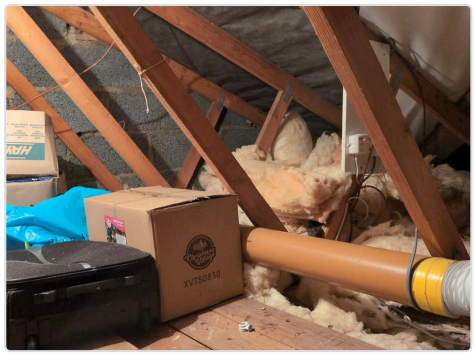


THERMAL



THERMAL

Loft space



ENVIRONMENT

Air temperature and humidity	20.8°C, 64% RH
Dew point	13.7°C
Coldest surface measured	14.5°C at South external gable
Surface against dew point	0.8°C ABOVE Marginal, condensation is likely at times.
Thermal scan	NO ANOMALY Scanned with a thermal imaging camera, surface 14.5°C, air 20.8°C, 64% RH.
Heating	None.

CHIMNEY

Chimney breast	Present in this room.
Flue	NOT VENTED IN THE ROOM The breast is not vented in the room. A flue that is not ventilated at both ends stays cold and still. That is the condition in which flue condensation forms and in which hygroscopic salt contamination of the breast develops, and it is why a breast can read wet on a wall that has no other source of water available to it.

VENTILATION

Background ventilation	Vented soffits, Vented soffits, air path blocked by insulation
Trickle vents	None fitted
Mechanical extract	None
Door undercut	Not applicable

MOISTURE

Floor in this room	Suspended timber
Control reading	10.4 %WME. Timber reveal of the loft hatch
Reading	7.2 %WME Timber beside the coated area against a control of 10.4
Reading	7.7 %WME Rafter above the patch against a control of 10.4

Reading	**6.1 %WME** Joist beside the patch against a control of 10.4
Reading	**7 %WME** Jack rafter near the patch against a control of 10.4
Reading	**25.5 %WME** Ridge timber directly above the patch against a control of 10.4

BLACK BITUMEN TYPE COATING

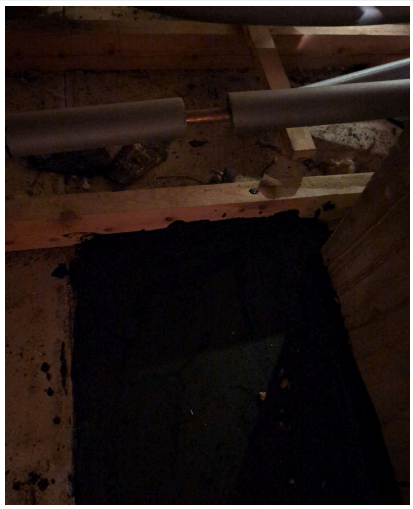
Surface	Floor
Whereabouts	Loft side of the ceiling, directly above the living room patch
Observed	Other
Reading on it	**100 %WME** On the coating, directly above the living room patch against a control of 10.4
Reading on it	**26.5 %WME** Edge of the coating, directly above the living room patch against a control of 10.4

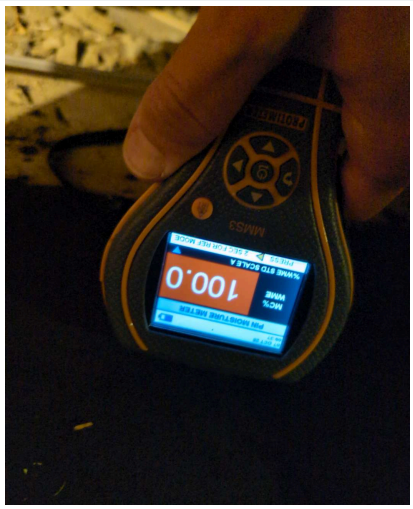
OBSERVED

Visible mould	None observed
Other observations	Staining



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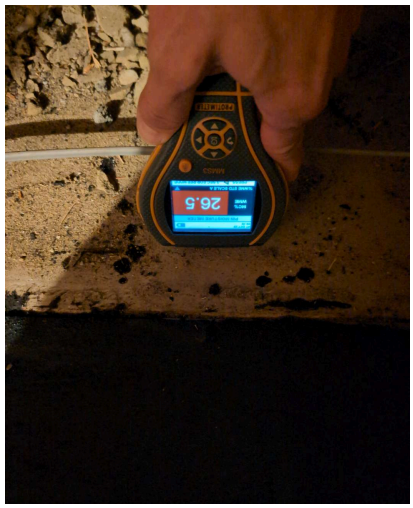

WHERE THE READING WAS TAKEN



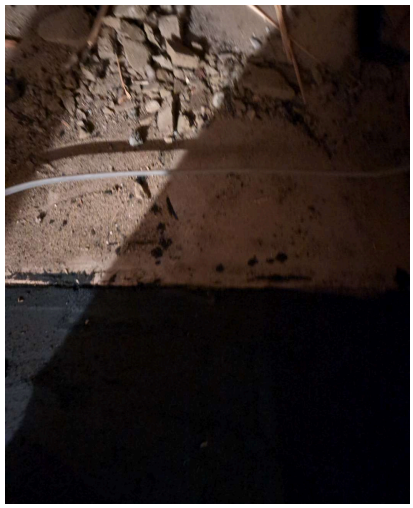
METER SHOWING THE READING



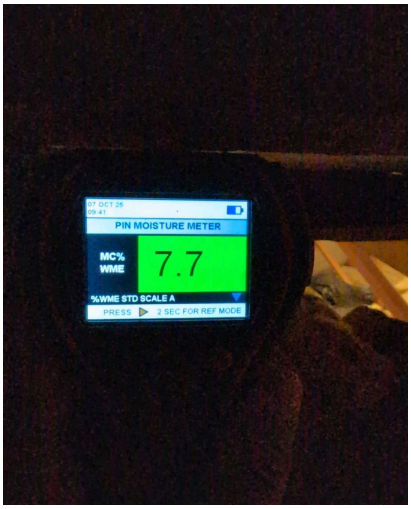
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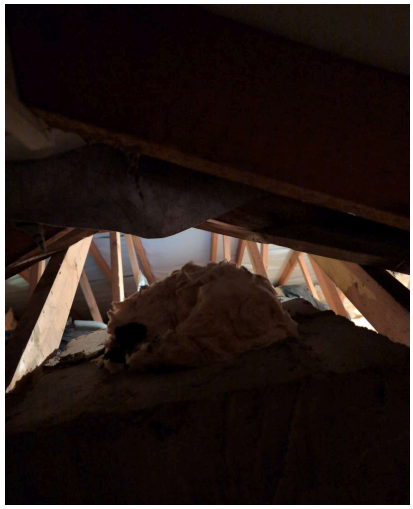
METER SHOWING THE READING



WHERE THE READING WAS TAKEN



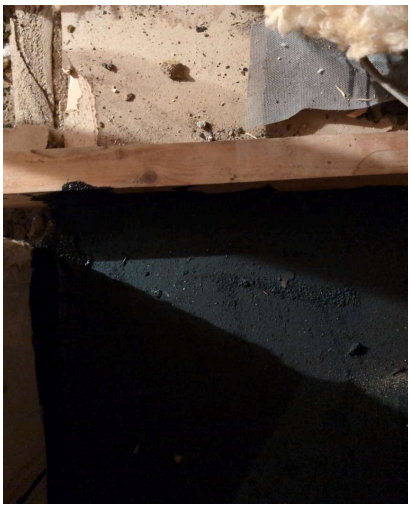
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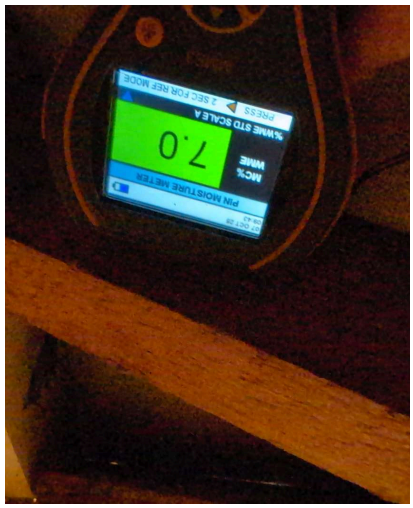
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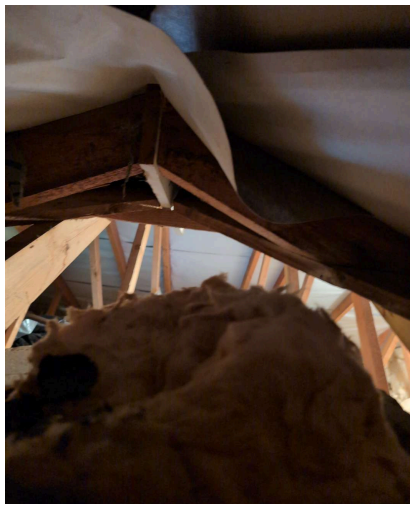
METER SHOWING THE READING



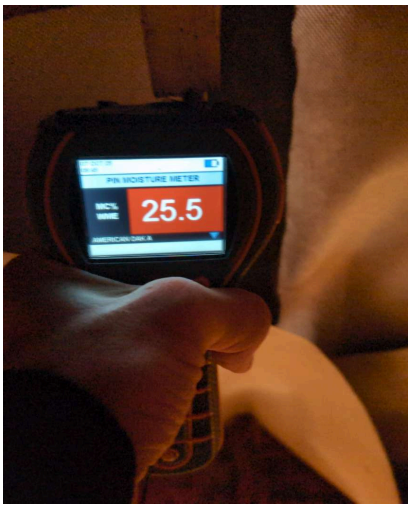
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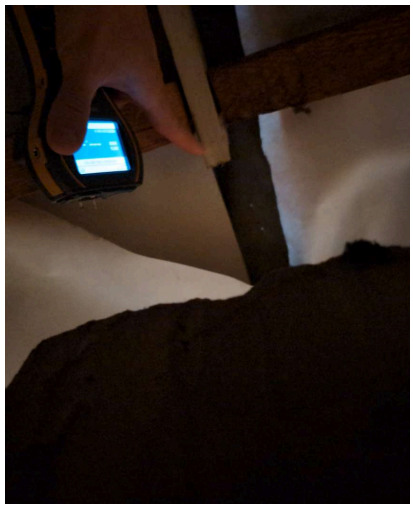
METER SHOWING THE READING



WHERE THE READING WAS TAKEN

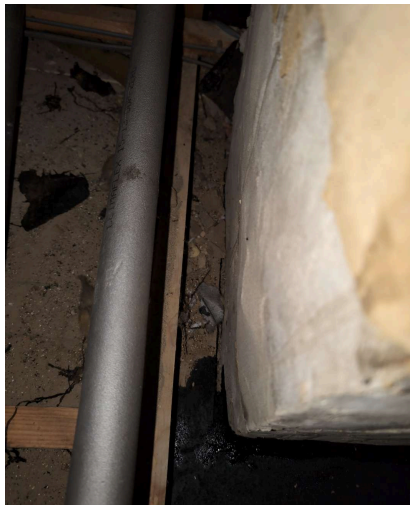


METER SHOWING THE READING


WHERE THE READING WAS TAKEN


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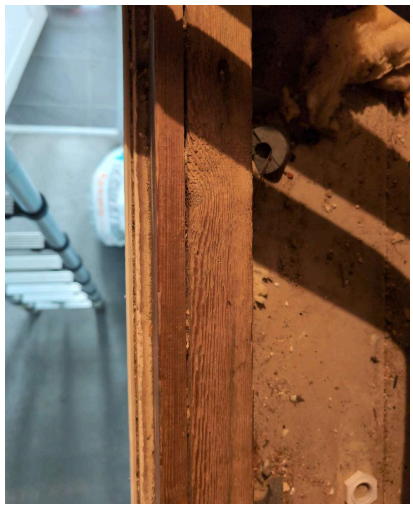

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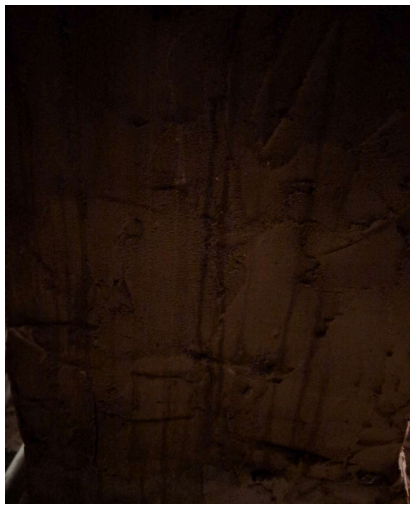

DEFECT


CHIMNEY BREAST, NOT VENTED



METER IN POSITION


CONTROL LOCATION


OTHER



DEFECT

Ridge with elevated moisture readings



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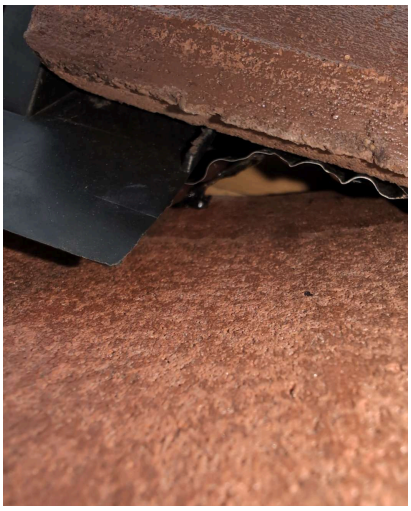
Cut ridge timber



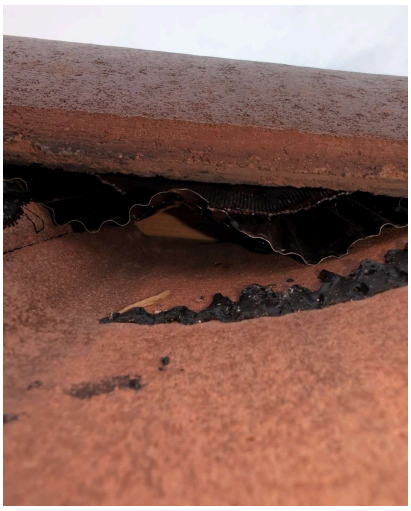
OTHER



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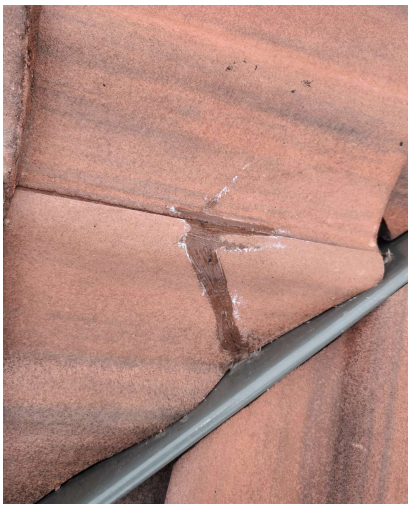
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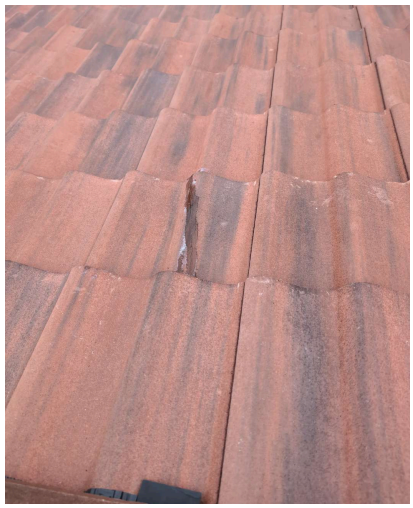
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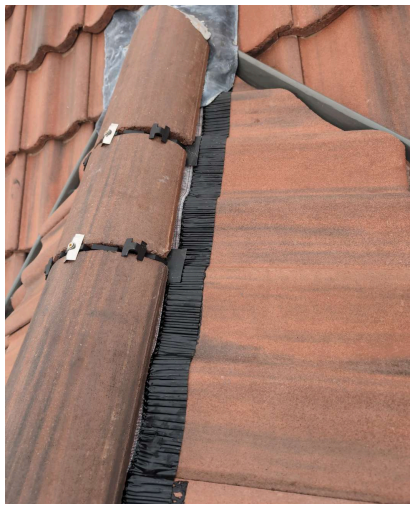
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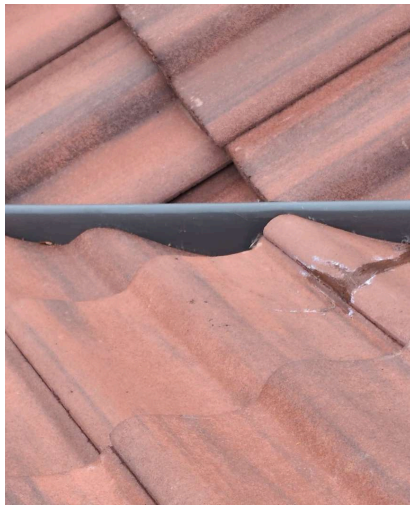
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THERMAL IMAGING

All accessible rooms were scanned with a thermal imaging camera under the conditions recorded above. cold bridging was identified at Living room. no anomaly was found in Loft space.

What was considered, and what was ruled out

Every mechanism that could produce these readings is judged on the evidence, not selected at the start. What has been excluded matters as much as what has not.

MECHANISM	VERDICT	EVIDENCE
Penetrating damp, building defect	SUPPORTED	The ridge flashing should be dressed down equally on both sides of the ridge and bonded to the tiles. Over the patch it has not bonded and has lifted, leaving open gaps under the ridge tiles. The roll has not been dressed equally, so a section of its breathable centre is exposed to the weather, and the ridge board can be seen from inside the loft. The ridge timber directly above the patch gives an elevated reading of 25.5, where the rafter, jack rafter and joist close by read 6.1 to 7.7 and the loft control 10.4. The failed flashing, the cut ridge board and the patch line up one directly above the other. The stack below carries dark run marks down its faces. Elsewhere, cracked tiles beside a valley are held with sealant.
Penetrating damp, wind driven rain	SUPPORTED	With the ridge flashing lifted, wind driven rain is carried up under the ridge tiles and into the roof at the ridge. Light rain was falling during the survey, and the only elevated timber in the loft is the ridge over the old stack position.
Salt contamination of plaster	CANNOT BE EXCLUDED	The patch is at the head of the chimney breast, where salts from the flue are commonly carried into the plaster. Both readings on the patch were at the top of the scale, 100 %WME, while the joist beside it read 6.1. A very high reading with dry material close by is the signature of salts as much as of water. Salts draw moisture from the air, which would explain a patch that is worse in the summer and did not change when the roof was replaced.
Surface condensation	CANNOT BE EXCLUDED	The bitumen type coating above the patch was 16.1 degrees against a dew point of 13.3 at the time, a margin of 2.8 degrees, so condensation was not forming on it during the survey. It cannot be excluded in other conditions. The coating also seals the back of the plasterboard ceiling, so it cannot dry upwards into the loft.
Interstitial condensation	CANNOT BE EXCLUDED	The soffit vents are blocked and the coldest surface in the loft, the south gable, was only 0.8 degrees above the dew point. Moisture collecting under the roof covering at the ridge cannot be excluded as a contributor to the ridge reading.
Plumbing or drainage leak	EXCLUDED	Pipework runs across the loft beside the coated area, and no leak was seen from it.
Rising damp	EXCLUDED	The affected area is a ceiling directly below the loft. The control on the living room wall at skirting level read 14.5 %WME.

Bridging or construction defect	EXCLUDED	The problem is at ceiling level and does not relate to ground levels or the base of the walls.
Historic or residual moisture	EXCLUDED	The ridge timber reads elevated now, in light rain, so this is not residual moisture from an old event alone.

Technical findings

This detached property, built between 1965 and 1980, was inspected in October 2026. Light rain was falling, with light rain in the previous 48 hours, and it was 20.6 degrees and 60.1 per cent relative humidity outside. Readings were taken with a pin meter in %WME, a thermal camera, a hygrometer and a surface thermometer. The survey was focused on the living room ceiling and the loft space above it. The roof covering was recorded in photographs. No opening up was carried out.

The living room. Where the ceiling meets the chimney breast there is staining, peeling paint and blown plaster. Both readings on the patch were at the top of the meter scale, 100 %WME, against a control of 14.5 on the external north wall at skirting level. The thermal camera shows the whole ceiling as patchy, with cooler areas spread across it rather than one cold spot over the patch.

The loft above. The chimney stack has been taken down below the roof and stops inside the loft. Its top is covered with loft insulation, blackened with soot, and the flue is not vented at the top or the bottom. Dark vertical run marks stain the faces of the stack. On the loft side of the ceiling, directly above the living room patch, a black bitumen type coating has been applied, most likely as an earlier attempt to stop water at this point. It reads 100 %WME on the coating and 26.5 at its edge. The ceiling is plasterboard. Plasterboard and its paint finish are designed to let moisture pass through and dry from both faces. Coating the back of the board with bitumen changes the way the ceiling was designed to work: the coating acts as a seal, so any moisture in the board can only leave through the painted face in the room, which is where the paint is peeling.

The roof timbers. The ridge timber has been cut where the stack once passed through the roof. Directly above the patch it gives an elevated reading of 25.5. The rafter, jack rafter and joist around the patch read 6.1 to 7.7, and the loft control on the hatch reveal 10.4. The elevated readings are therefore confined to the ridge over the old stack position. From inside the loft the ridge board can be seen, which it should not be on a properly sealed ridge. The soffit vents are blocked, and the loft insulation has been disturbed in places.

The ridge. The ridge tiles are dry fixed. On a dry fixed ridge a flexible ridge roll runs under the ridge tiles. Its corrugated flashing skirts are dressed down equally on both sides of the ridge and held to the tiles by an adhesive strip, which seals the ridge against wind driven rain, while the breathable centre of the roll stays covered by the ridge tiles. Over the patch the flashing has not bonded and has lifted away, leaving open gaps under the ridge tiles, with old bitumen on the tiles below. The roll has also not been dressed equally on both sides of the ridge. Along one side a section of its breathable centre shows between the ridge tiles and the flashing skirt, exposed to the weather, which it should not be: it is designed to sit covered by the ridge tiles and degrades in sunlight. Wind driven rain is carried up under the flashing through these gaps and into the fabric of the roof at the ridge. The three line up vertically: the failed flashing sits directly above the cut ridge board with the elevated reading, which sits directly above the patch on the living room ceiling. Elsewhere, cracked tiles beside a valley are held together with sealant rather than replaced.

Salts. The patch is at the head of the chimney breast. Flue gases leave salts in the brickwork and plaster of a chimney, and those salts draw moisture from the air, so the plaster reads high and stains in humid weather even without a leak. Both ceiling readings were at the top of the scale while the joist beside the coated area read 6.1, a sharp edge of the kind salts produce. A meter reads salts and water alike, so the readings alone cannot separate them.

Condensation on the day. The living room was 21.0 degrees and 69.7 per cent, a dew point of 15.2, with the coldest surface, the external north wall, 2.3 degrees above it. The loft was 20.8 degrees and 64.0 per cent, and the coated area above the patch was 16.1 degrees against a dew point of 13.3, so condensation was not forming there during the survey. The vapour pressure was 1.73 kPa in the living room and 1.57 kPa in the loft against 1.46 kPa outside, an excess of 0.28 and 0.11 kPa. As an indication from a single visit, the living room air carries a moderate excess of moisture over the outside air. The living room has an opening window only, no trickle vents and a door undercut of about 3mm.

Conclusion

On the evidence it is highly probable that the damp patch on the living room ceiling comes from wind driven rain entering under the ridge, directly over the old chimney position. The only elevated timber in the loft is the ridge over where the stack used to pass through the roof, and the stack below it carries run marks. The failed ridge flashing, the cut ridge board with the elevated reading and the patch on the ceiling line up one directly above the other. The reroof made no difference because the ridge flashing over this point has not bonded and has lifted, and rain is still carried in under it.

Three things keep the patch going. Rain carried up under the lifted ridge flashing into the roof at the ridge. A capped, unvented flue with soot covered insulation on top, which holds whatever moisture gets in. And the bitumen coating on the back of the plasterboard, which changes the way the ceiling was designed to work, so it can only dry into the room. Salts from the old flue in the ceiling plaster cannot be excluded, and would explain why the patch is worse in the humid summer months.

The order matters. Replace the ridge flashing and the cracked tiles first, ventilate the flue and clear the soffit vents, then allow a drying period. Only then cut out and replace the bitumen backed plasterboard, with samples deciding whether the ceiling around it needs replacing too because of salts. Repainting or replastering before the source is dealt with will see the patch return.

Recommendations

Vigilant Surveys carries out no remedial work and holds no contractor ties. No quantities or prices are given, so these can be put to any contractor for pricing.

Urgent
Actively causing damage, getting worse, or preventing other work from succeeding.

Severe
A material cause of the problem. The property will not dry until it is dealt with.

Moderate
Contributes to the problem, or should be put right as good practice.

Monitor
No action indicated on the evidence so far. Keep it under observation, and act if it changes or if it has not improved once the work above is done.

Cosmetic
Appearance only. Not a necessary measure.

These are ordered by priority, not by date. We do not set timetables, because the right sequence depends on access, on the works programme and on what the further investigation finds.

1. **Replace the ridge roll and refix the ridge tiles, and replace the cracked tiles held with sealant.**
   Suitable trade: A roofer.
   URGENT The adhesive of the ridge flashing has not bonded and the flashing has lifted, leaving open gaps under the ridge tiles, and the ridge board can be seen from inside the loft. Wind driven rain is carried up under it. The failed flashing is directly above the cut ridge board, which gives an elevated reading of 25.5 where every timber around it reads 6.1 to 7.7, and that is directly above the patch. The roll has not been dressed equally on both sides, so a section of its breathable centre is exposed to the weather, which it should not be. A new ridge roll, with its flashing dressed down equally on both sides and bonded to the tiles to the manufacturer's instructions, closes that route. Cracked tiles should be replaced, not sealed, as sealant fails and lets water back in.

2. **Remove the insulation from the top of the chimney stack in the loft and ventilate the flue at the top and the bottom.**
   Suitable trade: A general builder.
   SEVERE The flue is capped with soot covered insulation and has no ventilation at either end, so moisture that gets into it cannot escape. A ventilated flue dries out; a sealed one holds moisture against the stack and the ceiling below.

3. **Clear the blocked soffit vents and keep the loft insulation back from the eaves.**
   Suitable trade: A roofer or general builder.
   MODERATE With the soffit vents blocked, the loft is poorly ventilated, and the coldest surface was only 0.8 degrees above the dew point. Air moving through the loft carries off moisture before it can condense under the roof covering.

4. **Lay the loft insulation evenly again where it has been disturbed.**
   Suitable trade: A general builder, or this can be done at home.
   MODERATE The thermal camera shows the living room ceiling as patchy, with cooler areas spread across it. Gaps in the insulation leave cold patches on the ceiling, where moisture in the room air settles first.
5. **Once the roof and flue works are done and the area has dried, cut out and replace the bitumen backed plasterboard, and redecorate.**
   Suitable trade: A plasterer, with a decorator for the finish.
   MODERATE The bitumen on the back of the board stops it breathing and drying upwards, so it will never behave like the rest of the plasterboard on this ceiling, and is likely to cause problems of its own: any moisture in it can only leave through the painted face in the room, which is where the paint is peeling. It should be removed whatever the samples show. The samples in further investigation decide whether the ceiling around it also carries salts from the flue and needs replacing. Replacing the ceiling before the source is dealt with will see the patch return.
6. **Improve background ventilation in the living room and run a dehumidifier sized for the room in humid weather.**
   Suitable trade: A joiner or window specialist for the vents. No trade is needed for the dehumidifier.
   MONITOR The room was 69.7 per cent relative humidity on the day, with an opening window only, no trickle vents and a door undercut of about 3mm. The client reports no history of condensation in the house, and once the flue is ventilated this is a precaution rather than a necessary measure. It is worth considering if the samples find salts in the ceiling around the board, as salts draw moisture from humid air.

Further investigation

WHAT	WHY	WHAT IT WOULD ESTABLISH	ACCESS
Samples from the ceiling at the head of the chimney breast, tested for moisture content and salts.	Both readings on the patch were at the top of the meter scale. A meter reads salts and water alike, and a chimney breast is a common source of salts. The benchmark is a sample from the ceiling away from the breast.	Whether the high readings are water or salts, and so whether the ceiling around the bitumen backed board must also be replaced or only redecorated once dry.	Invasive, consent required
A return visit in heavy, wind driven rain to read the ridge timber and the top of the stack again.	Only light rain fell during the survey. The ridge read 25.5 against the rafters around it at 6.1 to 7.7 and the loft control of 10.4, which are the benchmarks for the recheck.	Whether rain is still entering at the ridge over the old stack position once the new ridge flashing is fitted.	Non destructive

Limitations of this inspection

Opening up	None undertaken

Instruments used	Thermal imaging, Moisture meter, Hygrometer, Surface thermometer
Weather qualification	Light rain at the time of inspection, with light rainfall in the previous 48 hours
Outside the scope of this report	Timber decay, which requires a CSRT qualified surveyor, Ventilation flow rates

How to read the readings in this report

Moisture readings are comparative. They are taken with an electrical resistance meter and expressed as a wood moisture equivalent, %WME. On plaster and masonry this is a comparative indication, not a measurement of how much water the material contains. That is why readings are given against a control taken in an unaffected area of the same room.

Green, below 17 %WME	Amber, 17 to 19 %WME	Red, 20 %WME and above
Dry	At risk	Wet

A hatched square marked × in a moisture grid is a position that could not be reached, for example behind fitted furniture. It is not a dry reading.

Dew point is calculated, not measured, from the recorded air temperature and relative humidity using the Magnus approximation. Where a surface temperature has been measured, comparing the two shows whether condensation is occurring on that surface.

Where a moisture grid is shown, the readings are laid out on the surface they were taken from. The pattern is diagnostic. Moisture rising from the ground declines with height, a localised patch points to water entering at that point, and a band with an abrupt upper edge usually means plaster carried too low rather than groundwater.

Use of this report as an example

We publish anonymised examples of our work so that people can see what a Vigilant survey report actually contains before they book one. We do that only with the written agreement of the client the report was written for. The name, the property address and the postcode are removed, along with any photograph that would identify the house. This copy is published on that basis.

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